

Resolving outages - two separate projects

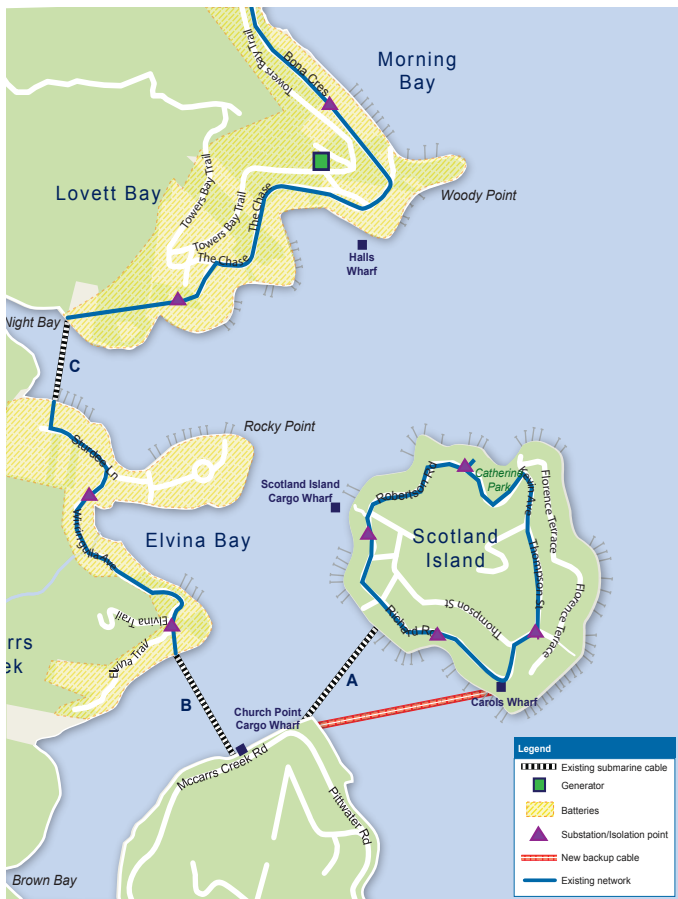
Since our August newsletter, Ausgrid has been progressing feasibility and design studies and working with industry experts to determine the best solution for each community. As a project team, we have assessed a number of options and now have a clear way forward. These solutions aim to minimise the impact of electrical outages to the residents and businesses of Scotland Island and West Pittwater.

The investigations concluded that two different approaches are required for Scotland Island and West Pittwater due to the layout and design of the existing electricity network in each of these areas. West Pittwater has a linear and Scotland Island has a circular network arrangement.

A number of project scenarios were assessed for each location including the original cable loop. The proposed solutions along with network arrangement are depicted below.

Scotland Island

Ausgrid's proposed solution is to utilise Horizontal Directional Drilling (HDD) to create a bore from Church Point to Carol's Wharf, Scotland Island which will house a new electricity cable. Both the new and existing cable will be in service at the



Scotland Island and West Pittwater area map

same time in order to minimise the impact of a failure to a single cable. The new cable will lie in a conduit (pipe) below the ocean bed rather than on the ocean floor as the current cable does, which minimises the risk of impact or damage.

As part of the design for the HDD bore, Ausgrid is considering future energy requirements for the Island and the possibility of including NBN cables or fibres.

Ausgrid is also looking at a range of short-term solutions to quickly isolate problems on the Island's overhead network in order to minimise an affected outage area. The combination of both a new HDD cable and enhanced isolation capability will:

1. Eliminate some outage scenarios such as those caused by cable damage.
2. Significantly reduce the number of residents impacted in the event of an outage.

Ausgrid intends to have a detailed design completed by mid-2018. Further project information including construction details, will be sent to residents in early 2018.

West Pittwater

The linear nature of the network on West Pittwater means there is no traditional 'poles and wires' solution that can address all the types of outages faced in the area. As such, Ausgrid is proposing to install a hybrid solution to address the various types of network outages being experienced.

Details of the final solution are still to be determined and relies on further information from individual households and consultation with market experts. However, based on preliminary consultation this hybrid solution will most likely be a combination of technologies such as household batteries and solar, plus a hybrid community generator.

Ausgrid's next step is to undertake individual household energy audits of all properties on West Pittwater to gain detailed energy consumption data, and identify opportunities to reduce impacts the event of an outage. These audits will start on Monday, 8th January and we encourage all households to participate to provide robust data. Further information will be included in a follow-up project letter and at community sessions in mid-December (see over the page).

Ausgrid will be seeking expert market input in early 2018. We will be keeping the community informed during this process and seeking feedback at all times.

Ausgrid will not progress the initially proposed HDD cable loop option due to the limited benefit it would provide in resolving underwater cable and overhead outages. In addition to this, further analysis has identified there are

significant technical and environmental risks associated with the installation of this cable.

In the interim, short term operational improvements are also being made at West Pittwater to improve outage responses.

The final West Pittwater solution will require broad community support for it to be of value to both residents and Ausgrid. We will keep the community informed as the project progresses. Ausgrid is planning to have a detailed solution completed for your feedback and comments in late 2018.

Ausgrid in your area

Over the coming months you may see expert consultants, surveyors and community information sessions in your area. The information gathered from these activities will help Ausgrid determine the final makeup of its proposed solutions for each area. We encourage you to attend one of the information sessions.

Project need

Apart from the two outages which affected submarine cables in 2013 & 2015, reliability has been compromised by storms and vegetation impacting overhead power lines. Since 2015, there have been a total of seven outages on Scotland Island and West Pittwater that were caused by issues unrelated to the submarine cables. This has prompted Ausgrid to look at alternate and non-network solutions.

Project update

This newsletter provides an update about the long term solutions we are proposing for both Scotland Island and West Pittwater and short term improvements we are currently implementing. Moving forward, we will be undertaking consultation and providing project information to both communities separately, with information available at www.ausgrid.com.au/scotlandisland.

Regular updates will be provided through the two community groups and Council to keep the community informed and to seek feedback at key stages. We encourage you to contact us at any time for more information or to provide feedback.

Thank you to those that completed our initial community survey. This information has played an important part in the project planning process to date. A summary of the feedback is available on the project web page (www.ausgrid.com.au/scotlandisland).

Short term improvements

You may have noticed Ausgrid staff undertaking work in your area in recent months. This work is ongoing and contributes to long term reliability together with the more comprehensive solutions discussed above. Improvements include:

- Assessment and upgrades of network assets including existing cables, vulnerable points in the network and isolating capability.
- Assessment and improvements to current vegetation management.

- Improvements to staff access procedures (including marine transport) and storage of equipment.
- Improvements to current work practices and increased specialist field training for operators.
- Establishment and roll-out of an improved community information system.

Next steps

Ausgrid will continue to update and engage both communities and stakeholders as we implement immediate improvements and continue to develop the proposed long-term reliability solutions.

Key dates

- **December 2017**
Further investigations into West Pittwater solution and development of market brief
- **Now – mid 2018**
Design and approval of the new underground cable for Scotland Island
- **Now and 2018**
Implementation of short term measures in both areas
- **January 2018**
Home Energy Audits West Pittwater
- **Mid 2018**
Construction to commence for Scotland Island cable
- **End 2018**
Developed design for West Pittwater solution

Community information sessions

To provide more detail on the proposed solutions and gain feedback from both communities, we are holding two community information sessions. We encourage you to attend one of the sessions below.

Weekend

Location: Church Point Café
Date: Saturday 16th December
Time: 10:00am -12:00pm

Week night

Location: Church Point Café
Date: Tuesday 19th December
Time: 16:00pm - 19:00pm

Contacting us

You are welcome to contact us with any enquiries:
Call 1800 006 549 (free call from fixed phones)
Email majorprojects@ausgrid.com.au
Visit www.ausgrid.com.au/scotlandisland



Interpreter service 131 450